WHAT IS CLAIMED IS:

CLAIMS

1-7. (Cancelled).

8. (Currently Amended) A method ~~The method of claim 3, further comprising~~ of transmitting pilot tones in a multi-sector cell including at least a first sector and a second sector, the second sector being located adjacent said first sector, the method comprising:

transmitting, using a first tone, in said first sector during a first symbol time a first pilot signal having a first pre-selected transmission power;

transmitting, using said first tone, in said second sector during a second symbol time, which overlaps said first symbol time, a second pilot signal having a second pre-selected transmission power which is different from said first pre-selected transmission power;

transmitting, using a second tone, in said first sector during a third symbol time a third pilot signal having a third pre-selected transmission power;

transmitting, using said second tone, in said second sector during a fourth symbol time, which overlaps said third symbol time, a fourth pilot signal having a fourth pre-selected transmission power which is different from said third pre-selected transmission power;

transmitting, using a third tone, in said first sector during a fifth symbol time a fifth pilot signal having a fifth pre-selected transmission power; and

transmitting, using said third tone, in said second sector during a sixth symbol time, which overlaps said fifth symbol time, a sixth pilot signal having said fifth pre-selected transmission power.

9. (Original) The method of claim 8, wherein said second, third and fifth pre-selected transmission powers are the same.

10. (Original) The method of claim 9, wherein said second pre-selected transmission power is zero, the second, third, fifth and sixth pilot signals being NULL pilot signals.

11. (Original) The method of claim 8,

wherein said first, second, and third tones are the same; and

wherein said first, third and fifth symbol times are different.

12. (Original) The method of claim 8,

wherein said first, third and fifth symbol times are the same; and

wherein said first, second and third tones are different.

13. (Original) The method of claim 8, wherein said first, fourth and fifth pre-selected transmission powers are the same.

14. (Original) The method of claim 13,

wherein said first, fourth and fifth pre-selected transmission powers are non-zero; and

wherein said second and third pre-selected transmission powers are zero.

15. (Original) The method of claim 8, further comprising:

periodically repeating each of said transmitting steps to form a pre-determined repeating sequence of said transmitting steps.

16. (Original) The method of claim 12, further comprising:

transmitting, using a fourth tone, in said first sector during a seventh symbol time a seventh pilot signal having a seventh pre-selected transmission power which is different from said fifth pre-selected transmission power; and

transmitting, using said fourth tone, in said second sector during an eighth symbol time, which overlaps said seventh symbol time, an eighth pilot signal having an eighth pre-selected transmission power which is the same as said seventh pre-selected transmission power.

17. (Original) The method of claim 16,

wherein said first, second, third and fourth tones are different; and

wherein said first, third, fifth and seventh symbol times are the same.

18. (Original) The method of claim 16,

wherein the first, second, third and fourth tones are the same; and

wherein said first, third, fifth and seventh symbol times are different.

19. (Original) The method of claim 16, wherein the first, fourth and sixth pre-selected transmission powers are the same.

20. (Original) The method of claim 19,

wherein the second, third and fifth pre-selected transmission powers are zero; and

wherein the said first, third, fifth and seventh symbol times are the same.

21. (Original) The method of claim 16, further comprising:

repeating each of said transmitting steps according to a pre-selected repetition pattern.

22. (Currently Amended) A method of transmitting pilot tones in a multi-sector cell including at least a first sector and a second sector, the second sector being located adjacent said first sector, the method comprising:

transmitting, using a first tone, in said first sector during a first symbol time a first pilot signal having a first pre-selected transmission power; and

transmitting, using said first tone, in said second sector during a second symbol time, which overlaps said first symbol time, a second pilot signal having a second pre-selected transmission power which is different from said first pre-selected transmission power;

~~The method of claim 1,~~ wherein said multi-sector cell further includes a third sector, said third sector being located adjacent said second sector, the method further comprising:

transmitting, using said first tone, in said third sector during a ninth symbol time a ninth pilot signal, said ninth symbol time overlapping said first and second symbol times, said ninth pilot signal being transmitted with the same transmission power as said first pilot signal.

23. (Currently Amended) A method of transmitting pilot tones in a multi-sector cell including at least a first sector and a second sector, the second sector being located adjacent said first sector, the method comprising:

transmitting, using a first tone, in said first sector during a first symbol time a first pilot signal having a first pre-selected transmission power; and

transmitting, using said first tone, in said second sector during a second symbol time, which overlaps said first symbol time, a second pilot signal having a second pre-

selected transmission power which is different from said first pre-selected transmission power;

~~The method of claim 1,~~ wherein said multi-sector cell further includes a third sector, said third sector being located adjacent said second sector, the method further comprising:

transmitting, using said first tone, in said third sector during a ninth symbol time a ninth signal, which is one of control and data pilot signal, said ninth symbol time overlapping said first and second symbol times.

24-25. (Cancelled).

26. (Currently Amended) The method of claim 23 ~~25~~, further comprising:

periodically repeating each of said transmitting steps.

27-28. (Cancelled).

29. ~~The method of claim 28, further comprising:~~ A method of transmitting pilot signals in a multi-sector cell, the multi-sector cell including at least first, second and third sectors, each of the first, second and third sectors being located adjacent at least one other one of said first, second and third sectors in said cell, the method comprising:

transmitting during at least a portion of a first symbol time:

a first pilot on a first tone in the first sector using a first pre-selected transmission power;

a second pilot signal on the first tone in the second sector using a second pre-selected transmission power which is different from said first pre-selected amount of transmission power; and

a third pilot signal on the first tone in the third sector using a third pre-selected amount of transmission power, wherein the first and third pre-selected amounts of transmission power are non-zero and are the same; and

transmitting during at least a portion of a second symbol time:

a fourth pilot on a second tone in the first sector using a fourth pre-selected amount of transmission power;

a fifth pilot on the second tone in the second sector using a fifth pre-selected amount of transmission power; and

a sixth pilot on the second tone in the third sector using said fifth pre-selected amount of transmission power.

30. (Original) The method of claim 29,

wherein said first and second symbol times are the same;

wherein said first, third and fourth pilot signals are transmitted with the same amount of power; and

wherein said second fifth and sixth pilot signals are NULL pilot signals transmitted with zero power.

31. (Original) The method of claim 29, further comprising:

transmitting during at least a portion of a third symbol time:

a seventh pilot on a third tone in the first sector using said first pre-selected amount of transmission power;

an eighth pilot on the third tone in the second sector using an eighth pre-selected amount of transmission power; and

a data symbol on the third tone in the third sector.

32. (Original) The method of claim 30, wherein the first, second and third tones are different and wherein the first second and third symbol times are the same.

33-35. (Cancelled).